

MONTHLY WEATHER REVIEW.

Editor: Prof. CLEVELAND ABBE. Assistant Editor: HERBERT C. HUNTER.

VOL. XXXV.

NOVEMBER, 1907.

No. 11.

The MONTHLY WEATHER REVIEW is based on data from about 3500 land stations and many ocean reports from vessels taking the international simultaneous observation at Greenwich noon.

Special acknowledgment is made of the data furnished by the kindness of cooperative observers, and by R. F. Stupart, Esq., Director of the Meteorological Service of the Dominion of Canada; Señor Manuel E. Pastrana, Director of the Central Meteorological and Magnetic Observatory of Mexico; Camilo A. Gonzales, Director-General of Mexican Telegraphs; Capt. I. S. Kimball, General Superintendent of the United States Life-Saving Service; Commandant Francisco S. Chaves, Director of the Meteorological Service of the Azores, Ponta Delgada, St. Michaels, Azores; W. N. Shaw, Esq., Director Meteorological Office, London; Maxwell Hall, Esq., Government Meteorologist, Kingston, Jamaica; Rev. L. Gangoiti, Director of the Meteorological Observatory of Belen College, Havana, Cuba.

As far as practicable the time of the seventy-fifth meridian is used in the text of the MONTHLY WEATHER REVIEW.

Barometric pressures, both at land stations and on ocean vessels, whether station pressures or sea-level pressures, are reduced, or assumed to be reduced, to standard gravity, as well as corrected for all instrumental peculiarities, so that they express pressure in the standard international system of measures, namely, by the height of an equivalent column of mercury at 32° Fahrenheit, under the standard force, i. e., apparent gravity at sea level and latitude 45°.

FORECASTS AND WARNINGS.

By Prof. E. B. GARRIOTT, in charge of Forecast Division.

IN GENERAL.

In November the great permanent winter area of high barometric pressure begins to build up over the interior of Asia. Barometric pressure also increases over the interior portions of Europe and North America. Over Bering and Greenland seas permanent winter areas of low pressure begin to form. In the tropical regions of the North Atlantic Ocean the weather is usually fine. In the Pacific Ocean area the typhoon season is nearing its end.

In the United States the Pacific coast wet season has fully set in. On the northeastern slope of the Rocky Mountains and in Arizona and New Mexico November is one of the driest months of the year. Killing frost is likely to occur in the Gulf and South Atlantic States, and light to heavy frost in northern portions of the Florida Peninsula.

In November, 1907, the Asiatic high barometer area began to build up rapidly during the second decade, and early in the third decade readings above 31.00 inches were reported in that region. During this period barometric pressure gradually diminished in the Iceland area to a reported minimum of 28.48 inches on the 22d. Pressure was generally low during this period over Bering Sea, and high over the Azores and Hawaiian Islands. This general distribution of pressure was attended by unsettled and unseasonably warm weather over the middle and northern latitudes of the North American Continent and western and northwestern Europe.

In the United States the first decade of the month was stormy. From the 1st to 3d a storm advanced with increasing intensity from the north Pacific to the north Atlantic coasts, attended by heavy rain generally over the eastern half of the country, and by gales on the Great Lakes and the Atlantic coast. Following this disturbance pressure continued low in the north and northwest, and on the 6th a barometric depression covered the country east of the Mississippi River, with a storm of marked strength central over Virginia. This storm deepened during the 6th and by the evening of that date had advanced to southern New England, where a barometric minimum of 28.90 inches was reported at Hartford, Conn. From the 1st to 4th severe storms were experienced over southwestern Europe.

The first half of the second decade of November was, on the whole, fair and cool in the United States. During this period a cool wave swept from the northeastern slope of the Rocky

Mountains eastward and southeastward, carrying the line of zero temperature into northern Nebraska, and the line of freezing temperature to the interior of the Gulf and South Atlantic States. Light frost was reported in the interior of northern Florida. During the last half of the month a succession of barometric depressions advanced northeastward from the Gulf of Mexico, attended by frequent and at times heavy rain in the Gulf and Atlantic States, by snow in the Northeastern States, and by gales of greater or less severity along the Atlantic coast and over the Great Lakes.

The month closed with rapidly rising pressure over the British Isles-Iceland area and falling pressure over the interior of Asia and east-central Europe. In the United States the so-called permanent winter high area had formed over the Plateau region, and seasonably cool and generally fair weather had set in over interior-western districts.

BOSTON FORECAST DISTRICT.*
[New England.]

The weather of the month was generally characteristic of the season, with the precipitation above the normal over a large portion of the district, and temperature near the normal or above. Snow fell in parts of all the New England States, with the monthly amounts ranging from a trace to 14 inches, the latter amount being at Jacksonville, Vt. Severe gales prevailed along the coast on the 6th and the 24-25th. On the 6th the high winds did minor marine and local damage, and delayed more or less shipping of all classes. During the storm of the 24-25th shipping was completely tied up thruout the coast. Vessels in Boston Harbor dragged anchor and there were several narrow escapes from collisions. The tides were the highest in many years, and hundreds of cellars along the water front and in lowlands were flooded, and much damage resulted. Seaside cottages and other property suffered more or less damage from the gales and the high water. The Canadian schooner *Cora B* was driven ashore near Gloucester; damage, \$20,000; crew saved. The schooner *Eastern Light* went ashore at High Cliff and was badly damaged; crew saved. The schooner *Lucy E* was wrecked near Duxbury; crew saved by the Gurnet Life Saving Station. According to newspaper accounts there was more or less damage to shipping along the entire New England coast.

Storm warnings were issued on the 2d, 6th, 20th, 21st, and 24th. There were no storms without warnings. The timely